

CLAIMS

1. A magnetic circuit (1.1, 1.2, 1.3) for an electrodynamic loudspeaker with a moving coil, said  
5 magnetic circuit having a shape which is axisymmetric about an axis of symmetry (R1-R1; R2-R2; R3-R3) and comprising:

- a dish-shaped yoke (2.1; 2.2; 2.3) with a flat bottom, whose edge, away from said bottom, is provided  
10 with a peripheral annular rim (6.1; 6.2; 6.3) projecting toward said axis with respect to the side wall of said dish and defining a circular opening (7.1; 7.2; 7.3) which is recessed with respect to said side wall;

15 - a disk-shaped magnet (8.1; 8.2; 8.3), placed centrally inside said yoke and borne by said flat bottom (3.1; 3.2; 3.3) thereof; and

- a cylindrical core (9.1; 9.2; 9.3), placed centrally inside said yoke and borne by said magnet,  
20 the part of said core away from said magnet being opposite said circular opening of the yoke and defining, with the latter, an annular gap (10.1; 10.2; 10.3), in which said moving coil is placed coaxially with the axis of said magnetic circuit thereby being  
25 able to move parallel to and coaxially with said axis, the clearance height (D) available for the coil inside said yoke being greater than the maximum distance that said coil can travel, inside said yoke, toward the bottom thereof,

30 wherein:

- the diameter of said magnet (8.1; 8.2; 8.3) is greater than that of said core (9.1; 9.2; 9.3), such that said magnet has a peripheral projection (14), which is annular and radial, with respect to said core;  
35 and

- the clearance height for the coil is limited, on the side facing said magnet, by said peripheral projection, such that this clearance height is determined solely by said core.

2. The magnetic circuit as claimed in claim 1,  
wherein the peripheral radial projection (14) of the  
magnet with respect to the core is at the most equal to  
5 three times the thickness (e) of said magnet.

3. The magnetic circuit as claimed in claim 2,  
wherein the peripheral radial projection (14) of the  
magnet with respect to the core is about the thickness  
10 of said magnet.

4. The magnetic circuit as claimed in claim 1,  
wherein:

- said core comprises, in contact with said  
15 magnet, a disk-shaped projecting heel (15), the  
diameter of which is greater than that of the rest of  
said core (9.2; 9.3), but smaller than that of said  
magnet (8.2; 8.3); and

- the clearance height for the coil is limited,  
20 on the side facing said magnet, by said projecting heel  
(15).

5. The magnetic circuit as claimed in claim 1,  
wherein it comprises an axial passage (16) passing  
25 through the flat bottom (3.3) of said yoke (2.3), said  
magnet (8.3) and said core (9.3).

6. The magnetic circuit as claimed in claim 1,  
wherein said magnet (8.1; 8.2; 8.3) is made of a  
30 sintered neodymium-iron-boron ternary alloy.

7. An electrodynamic loudspeaker,  
which comprises a magnetic circuit (1.1; 1.2; 1.3) as  
specified in claim 1.